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Baokang Yang

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/091,149  
Filing Date: March 04, 2002  
Appellant(s): YANG, BAO KANG

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Raymond Van Dyke  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed March 19, 2008 appealing from the Office action mailed May 30, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. Also, the advisory action of 11/9/06 clearly indicated that the claim amendments would be entered in box #7(b).

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,106,874	LIEBRECHT et al	8-2000
GB 2,335,134 A	BURKE	9-1999
JP 04311378A	HARADA et al	11-1992

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8, 10-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liebrecht et al as applied above, in view of GB 2335134A.

Liebrecht et al teach a clear fruit-juice based beverage (column 1, line 6) comprising 0.5- 4% whey protein isolate (column 4, line 54), a carbohydrate content of 6% and 30-260 g/L (column 11, line 8-9; column 5, line 8), an edible acid content of 0.3-1.0%

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(column 5, line 13), 5-95% fruit juice (column 4, line 40), the fruit juices themselves also providing an amount of acid (column 8, line 31), the beverage being clear (column 8, line 49), a PH of 3.0-4.0 (column 8, line 25), a viscosity of less than 15 cp (column 9, line 30), the carbohydrates including a blend of sucrose, fructose, and maltodextrin (column 8, line 12), acids such as a blend of malic, citric, and phosphoric (column 8, line 27), at least 33% the recommended daily intake of calcium (column 9, line 1), vitamins such as folic acid (column 8, line 56), an absence of arabinogalactan and pectin (column 9, line 36) which meets the limitations of claims 19-20 and 22 which only require "up to about (5 or 0.1)% thus encompassing 0%, and the ratios of ingredients being varied within the overall range (column 10, line 21). Liebrecht et al do not recite the use of whey protein hydrolysate. GB 2335134A teaches a nutritionally-fortified fruit-juice based beverage which uses whey protein hydrolysate and teaches that it is more easily digested than conventional whey protein isolates (page 3, lines 17-25). It would have been obvious to one of ordinary skill in the art to use a combination of whey protein hydrolysate and whey protein isolate in the invention of Liebrecht et al, in view of GB 2335134A, since both are directed to fortified beverage compositions which use whey protein products, since Liebrecht et al already included whey protein isolate (column 4, line 55), since GB 2335134A teaches that whey protein hydrolysate had the advantage of being more easily digested than conventional whey protein isolates (page 3, lines 17-25), and since using a combination of whey protein hydrolysate and whey protein isolate would have provided a protein source which was easily digested, less likely to precipitate during storage, and more acceptable mouthfeel, texture, and

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organoleptic properties as taught by GB 2335134A (page 3, lines 17-30), as well as being less expensive to produce due to a continued partial use of whey protein isolate as compared to using solely whey protein hydrolysate.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liebrecht et al, in view of GB 2335134A, as applied above, in view of JP 04311378A. Liebrecht et al and GB 2335134A teach the above mentioned components. Liebrecht et al and GB 2335134A do not recite about 0.5-4% inulin. JP 04311378A teaches a fruit juice beverage comprising 1-30% of a type of inulin (paragraph 0001 & 0012). It would have been obvious to one of ordinary skill in the art to incorporate the inulin of JP 04311378A into the invention of Liebrecht et al, in view of GB 2335134A, since all are directed to beverage compositions, since Liebrecht et al already taught a beverage to be used for patients (column 1, line 14), since the inulin of JP 04311378A provided improved bowel movement, no increase in blood sugar for diabetic patients, and a lowering of cholesterol and fats (paragraph 0009), since the beverage of Liebrecht et al required a low viscosity (column 9, lines 27-32), and since the inulin of JP 04311378A can be added to beverages due to its low viscosity and high solubility without sourness, bitterness, and puckery taste, as well as prevention of water-separation, or precipitation (paragraph 0011).

### **(10) Response to Argument**

#### **Argument A:**

Appellant argues that Liebrecht et al does not possess the carbohydrate levels required by GB 2335134A for using whey protein hydrolysate. However, GB 2335134A requires a carbohydrate level of 2-6 g/100 mL (page 3, line 29) and Liebrecht et al teaches a carbohydrate level of 30-260 g/L, or 3-26 g/100mL (column 5, line 8) and more preferably 30-120 g/L, or 3-12 g/100mL (column 8, line 4). Furthermore, Liebrecht et al teach that any numerical range or quantity should be interpreted as referring to the range specified therein and to any subset encompassed within the stated range. For example, a range of 1-10 should be interpreted as providing support for a range of 3-5, 1-9, 2-10, 4-5, 7-8, 5, 6, 7, etc (column 10, lines 20-25). Clearly, both references use the same amount of carbohydrate.

In response to appellant's argument that Liebrecht et al and GB 2335134A are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Liebrecht et al is directed to a nutritionally fortified juice-based beverage for patients (column 1, lines 6-16), while GB 2335134A is also directed to a nutritionally fortified juice-based beverage (abstract). This common ground appears to be acknowledged by appellant at page 3, line 18 of the Brief filed on 3/19/08. Furthermore, both beverages can also be carbonated as taught by GB 2335134A (abstract) and by Liebrecht et al (column 1, line 12).

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to appellant's argument that neither reference teaches a combination of whey protein hydrolysate and isolate, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). It would have been obvious to one of ordinary skill in the art to use a combination of whey protein hydrolysate and whey protein isolate in the invention of Liebrecht et al, in view of GB 2335134A, since both are directed to fortified beverage compositions which use whey protein products, since Liebrecht et al already included whey protein isolate (column 4, line 55), since GB 2335134A teaches that whey protein hydrolysate had the advantage of being more easily digested than conventional whey protein isolates (page 3, lines 17-25), and since using a combination of whey protein hydrolysate and whey protein isolate would have provided a protein source which was more easily digested, less likely to precipitate during storage, and possessed more acceptable mouthfeel, texture, and organoleptic properties as taught by GB 2335134A (page 3, lines 17-30), as well as being less



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expensive to produce due to a continued partial use of whey protein isolate as compared to using solely whey protein hydrolysate.

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to use a combination of whey protein hydrolysate and whey protein isolate in the invention of Liebrecht et al, in view of GB 2335134A, since both are directed to fortified beverage compositions which use whey protein products, since Liebrecht et al already included whey protein isolate (column 4, line 55), since GB 2335134A teaches that whey protein hydrolysate had the advantage of being more easily digested than conventional whey protein isolates (page 3, lines 17-25), and since using a combination of whey protein hydrolysate and whey protein isolate would have provided a protein source which was easily digested, less likely to precipitate during storage, and more acceptable mouthfeel, texture, and organoleptic properties as taught by GB 2335134A (page 3, lines 17-30) , as well as being less expensive to produce due to a continued partial use of whey protein isolate as compared to using solely whey protein hydrolysate.

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Appellant argues that there is no reasonable expectation of success from combining the references. However, GB 2335134A requires a carbohydrate level of 2-6 g/100 mL for using whey protein hydrolysate (page 3, line 29) and Liebrecht et al teaches a carbohydrate level of 30-260 g/L, or 3-26 g/100mL (column 5, line 8) and more preferably 30-120 g/L, or 3-12 g/100mL (column 8, line 4). Furthermore, Liebrecht et al teach that any numerical range or quantity should be interpreted as referring to the range specified therein and to any subset encompassed within the stated range. For example, a range of 1-10 should be interpreted as providing support for a range of 3-5, 1-9, 2-10, 4-5, 7-8, 5, 6, 7, etc (column 10, lines 20-25). Clearly, both references use the same amount of carbohydrate.

Appellant argues that neither reference addresses the issue of protein hydrolysates producing a clear beverage without precipitation. However, Liebrecht et al specifically required a clear beverage which was sediment free (column 1, line 6), and GB 2335134A explicitly taught that whey protein hydrolysate did not precipitate out when 2-6 g/100mL of carbohydrates was used (page 3, lines 17-30). Furthermore, Liebrecht et al teaches a carbohydrate level of 30-260 g/L, or 3-26 g/100mL (column 5, line 8) and more preferably 30-120 g/L, or 3-12 g/100mL (column 8, line 4). Furthermore, Liebrecht et al teach that any numerical range or quantity should be interpreted as referring to the range specified therein and to any subset encompassed within the stated range. For example, a range of 1-10 should be interpreted as providing support for a range of 3-5, 1-9, 2-10, 4-5, 7-8, 5, 6, 7, etc (column 10, lines 20-25). Clearly, both references use the same amount of carbohydrate.

**Argument B:**

In response to appellant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious to one of ordinary skill in the art to incorporate the inulin of JP 04311378A into the invention of Liebrecht et al, in view of GB 2335134A, since all are directed to beverage compositions, since Liebrecht et al already taught a beverage to be used for patients (column 1, line 14), since the inulin of JP 04311378A provided improved bowel movement, no increase in blood sugar for diabetic patients, and a lowering cholesterol and fats (paragraph 0009), since the beverage of Liebrecht et al required a low viscosity (column 9, lines 27-32), and since the inulin of JP 04311378A can be added to beverages due to its low viscosity and high solubility without sourness, bitterness, and puckery taste, as well as prevention of water-separation, or precipitation (paragraph 0011).

In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

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USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to appellant's argument that the references did not have identical components, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Drew E Becker/  
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